

Name: _____

Unit One Practice Test

1. Algebraic Writing: Answer each question in complete sentences using algebraic terms. Be sure to echo the prompt.

a. Name one similarity and one difference between an expression and an equation.

b. Between multiplication and division, how do you decide which operation should be performed first in an expression?

c. What does algebra mean in Arabic? Explain how this definition makes sense.

2. Symbols to Represent Operations: Given that $g \& h$ means $2g - h$, evaluate the following.

a. $4 \& 8$

b. $-3 \& 6$

3. Writing Algebraic Expressions and Equations: Write an algebraic expression or equation for each.

a. eleven increased by h

b. twice a number k decreased by seven

c. The product of four and x is three more than y .

4. Evaluating Expressions: Evaluate each expression if $x = 3$, $y = 2$ and $z = 7$.

a. xyz

b. $2x - y + z$

c. $3(x - y + z)$

5. Order of Operations

a. $4 + 5 - 1$

b. $\frac{2(7) + 6 + 4}{3(8)}$

c. $6 - [(2 + 13) - 5(3)]$

d. $3 + 4(2) - 7 + 12$

6. Integer Operations

a. $5 - 6 =$

b. $5 - (-6) =$

c. $-5 - 6 =$

d. $-5 - (-6) =$

e. $5(6) =$

f. $(-5)(-6) =$

g. $(-5)(6) =$

h. $5(-6) =$

i. $30/(-5) =$

7. Opposites and Absolute Value

a. What is the opposite of seven?

b. What is the absolute value of negative fifteen?

c. What is the product of the absolute value of nine and the opposite of nine?

d. What is the sum of the opposite of five and the opposite of negative eleven?

8. Word Problem: Please answer the question in complete sentences, using algebraic terms. Echo the prompt.

A scuba diver descends (goes down) eighty feet below the surface of the water. A few minutes later, he ascends (rises) fifty feet. What is his current depth as an integer? Explain.
